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EXTENSION SERVICE

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# REVIEW

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*marketing facility feasibility*

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*The Review offers the Extension worker, in his role of educational leader, professional guideposts, new routes and tools for speedier, more successful endeavor. Through this exchange of methods, tried and found successful by Extension agents, the Review serves as a source of ideas and useful information on how to reach people and thus help them utilize more fully their own resources, to farm more efficiently, and to make the home and community a better place to live.*

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## EXTENSION SERVICE

# REVIEW

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## EDITORIAL

Once-Upon-A-Time if you were looking for a spot for a grist mill you naturally picked a site by a stream with a good steady flow to keep the wheels turning. With local grain and customer close by. Down by the Old Mill Stream was famed in song and story.

Today a grist mill, a processing plant, or a factory is not a matter of happenstance. As this issue of the *Review* seeks to show there are many factors to be considered in starting a new enterprise.

A sorrowful sight is an abandoned factory with cobwebs where windows once were. You wonder what happened. Was it handicapped by poor site choice right from the beginning? Too far from potential customers? A tough market? Off the beaten track of transportation and communications? It could be one or many factors that sent the factory to the economic trash heap.

From that picture of lost hopes let's turn to a brighter scene. A sparkling new processing plant, say, some place in rural America. Under good management. Handy to its source of supply and labor. Good transportation. Communications. Banks. Utilities. A lot of hard thinking and planning went into this one. The odds are that it will be a success.—WAL



# Extension, Marketing, and Feasibility

by RICHARD G. FORD, *Economist*  
Division of Marketing and Utilization Sciences  
Federal Extension Service

**E**XTENSION work in marketing has entered a new era during the past few years—an era of emphasis on feasibility work. Much of the impetus for this work has come from private entrepreneurs and public groups such as Chambers of Commerce, RAD Committees and other development groups.

Yet feasibility work is not entirely new. Marketing and utilization specialists have recognized for some time that feasibility work is basic to improving business decisions in marketing, and that effective educational work in marketing necessarily contains different phases or aspects of feasibility.

Extension's response shows up in the increasing amount of feasibility work being done by established marketing and utilization specialists, and by the number of new staff members who have been assigned to it.

Extension workers are asked for analyses and information about the practicability of establishing various types of marketing facilities such as canning and freezing plants, dried milk plants, grain elevators, potato flaking, feedlots, and briquettes. Their primary concern is about size, types, and costs of equipment; employment; raw materials; market outlet; wages; location, permissive and restrictive codes, regulations, and ordinances; and pricing policy.

## Characteristics

In an effort to bring our feasibility material file up to date on all types of feasibility work done by the Federal Government and by State Extension Services, we have collected about 175 pieces from 16 States. These range from one-page mimeographed simple statements of the cost of constructing a particular facility, to elaborate econometric models relating interregional demand and supply responses and which require linear programming techniques.

A cursory analysis of these materials suggests that much current feasibility work is of the "one shot" type—a specific analysis for a particular firm for its individual use. Perhaps too little attention has been given to the development of a balanced educational program in feasibility.

Furthermore, a substantial part of research and Extension work in feasibility is partial and fragmentary—i.e., it is concerned with only a small segment of total feasibility, or a few specialized aspects.

## Central role of processor

Even though different groups make decisions controlling procurement (production), processing, and distribution (wholesaling-retailing), the processor plays a vital role. He coordinates operations of these three groups. This is essential if the marketing enterprise is to succeed.

Consider the producer (grower)-processor relationship. The producer has the final say as to whether or not he will produce a particular product. But the processor must be able to obtain a flow of raw products with certain specifications if he is to operate efficiently and produce a product that meets consumer acceptance.

On the other end, the wholesaler-retailer has the final say as to whether he will handle the output of any particular marketing firm. But again, the processor must be assured that when he produces a product and services of given volume and specifications, it will be accepted by the wholesaler-retailer.

Another critically important area is price policy. Prices paid by processors to producers and prices received from distributors must be properly related to total costs of processing (including assembling, transportation, actual processing, storing, and financing) and should provide adequate income to hire competent management and earn a surplus for capital accumulation.

## Feasibility package

Feasibility work may, therefore, be classified into four functional categories: (1) Procurement of the raw product, (2) processing the raw material, (3) distribution or selling the finished product, and (4) plant location.

The first three areas are of continuing concern during the entire life of any particular marketing firm but with changing emphasis over time. The fourth area, plant location, is of major concern when the business is initiated, when considering the construction of new facilities, or moving an existing business to a new location. As marketing and utilization specialists gain more experience, they tie these four areas into a "feasibility package."

To attain the greatest potential from the "package" approach, marketing and utilization specialists are working in teams. Some problems also require interdisciplinary coordination to effectively assess the economic technological, and political facets affecting feasibility. The one-man or single disciplinary approach is often superficial, and at best it only partially identifies and describes the problems and alternatives facing decision makers of marketing firms. ■



# Economic Considerations in Feasibility Work

by DANA G. DALRYMPLE, *Economist*  
*Division of Marketing and Utilization Sciences*  
*Federal Extension Service*

and LEON GAROIAN  
*Market Management Specialist*  
*Oregon Extension Service*

THE determination of the economic feasibility of a marketing facility is not an easy matter. It involves a complex balancing of general supply and demand factors, plus consideration of the facility itself. Yet this is an important area and one which is drawing Extension workers more and more frequently.

In this article we shall attempt to cover some of the main points that should be considered in feasibility work. Emphasis is given to processing facilities, but the lessons would apply to other marketing facilities. And while our discussion will center about the principles involved, their application is discussed elsewhere in this issue of the *Review* by several State specialists.

Before we discuss the basic economic considerations involved in feasibility, some questions must be answered.

The first is one of objectives. Why is the facility desired? Different groups may want it for different reasons. Local governments or Chambers of Commerce may, for instance, be interested in a facility primarily to increase employment. Farm groups, on the other hand, may want a facility in order to obtain new outlets for their produce or to increase farm income. But in either case, a rather detailed economic analysis should be a key factor.

Next, the area has to meet certain technical prerequisites. It must be physically possible to produce the crop that is to be handled in the facility. If processing is involved, the area must obviously have the power, water, sewage, transportation, and other necessary physical resources and community services.

## Economic factors

The basic economic factors center about supply and demand. Both need to be considered in terms of the raw and finished product, and in terms of the short run and the long run.

**Supply.** One of the immediate problems facing the facility will be that of lining up a supply of the raw material. The raw products must be of the right quality and be available for processing at the right place, at the right time, and in the right volume. Moreover, these requirements must be met consistently—not just when it is convenient for the producer. Many farmers think of processing outlets only in years of surplus production. Long-term contracts may be an answer.

Furthermore, if a farming area is not already producing the requisite raw material, there will be the problem of persuading the farmers of going into production. To do so they would probably have to be convinced that this would be more profitable than other alternatives. At the same time, the growers must have, or have access to, the resources and the know-how to go into production of the item.

In addition, it is necessary to consider longer-run changes in production as well as potential shifts in utilization between fresh and processing. The possible influence of supply control or diversion programs might also be examined. And the potential for new technologies should not be overlooked.

As for the finished product, decisions must be made as to what form of product to put up (canned, frozen, dried, etc.) and what sort of pack to use (institutional or retail). The possibility of new suppliers coming into the picture must also be weighed.

**Demand.** An all-important consideration, of course, is whether there will be a demand for the finished product—that is, under given conditions of price and other factors whether or not the product will be purchased. While the firm may initially be concerned with wholesale demand, ultimately it must be concerned with retail or consumer demand.

Assessment of demand can be a complex business. It may well involve a study of elasticities of demand and of trends in prices and consumption for the proposed and for related products. In addition, firsthand knowledge of the market should be included.

If it is rather obvious that the market for the product appears to already be saturated and/or demand is decreasing, caution should be exercised in going into production. Some rather special compensating feature would be needed to offset these disadvantages.

If, on the other hand the market appears to be good or to have potential, other questions come into play. These center about characteristics of the product (such as quality) which might bring it into stronger demand than products from other firms or areas, possible changes in demand in the future, and the degree of competition and type of market structure involved. If the product is new, a considerably more involved promotion effort may be necessary than if it is relatively well known.

**Prices.** The result of the interaction of supply and demand is price. Will the price for the proposed product be high enough to provide an adequate return on invested capital in the processing facility? Will it, in turn, enable the facility to pay an adequate price to growers? If these returns are not available now, are they likely to accrue in the near future?

To determine net returns it will likely be necessary to



make a detailed examination of costs—costs of the raw material, costs of assembly, processing, and distribution. These should be made at several levels of output and over varying lengths of season. There are certain minimum lengths of both for efficient operation.

In studying prices and costs, it will be desirable to look not only at the local area, but to also consider the influence of interregional and international competition in the short run and the long run. The alternative of investing comparable resources to improve existing marketing channels should also be evaluated.

### The facility

If an analysis of the foregoing factors suggests that the general climate for a facility might be favorable, a number of more specific questions remain. Again, both the short and long run should be considered.

One is the physical structure itself. What size of plant appears desirable in terms of anticipated supply, demand, and most efficient operation? Determination of this may well involve a more detailed examination of alternative methods of plant construction and layout. These studies would also shed light on the questions of whether there should be more than one plant and where they should be located. Picking the best location can in itself be a complex job.

Once these matters are settled we need to give some attention to answering the question of how the facilities are to be acquired. Should they be constructed or rented? Sometimes older facilities can be remodeled. Perhaps a merger of presently available facilities would be a more desirable alternative. Or possibly it would be better to try to attract an existing firm into the area.

A closely-related problem is one of obtaining adequate financing. Both fixed and working capital are involved. Many groups forget that in addition to the capital needed to build and equip the factory, a considerable amount may be necessary to carry out operations—including plant operation (wages, electricity, water, gas), promotion, and distribution. The amount necessary for promotion is often underestimated.

For the actual operation of the plant it will be necessary to obtain adequately trained management and labor. *Incapable management is the most common cause of small business failures.* To make most efficient use of these and other resources it may be desirable to extend the length of operation. Possibly production could be combined with other products. Buyers generally prefer more than one product line.

### Market entry

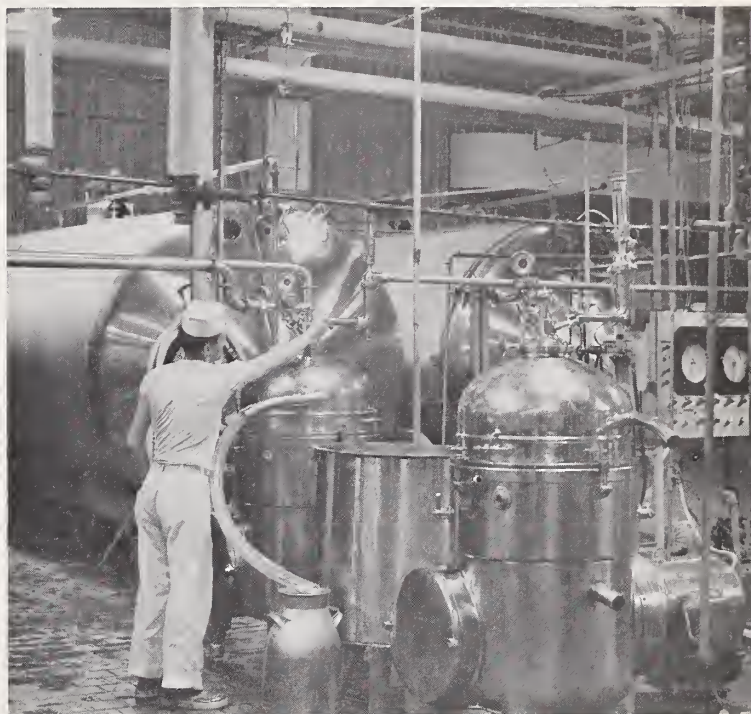
After studying the economic factors and considering the facility, the firm must devise a strategy for actually getting the product on the market. If the product has some special characteristic, such as unusually high quality, this may not be such a problem. However, it is probably the more usual case that entry will have to be based on lower prices, improved services, a strong promotion program, or the like.

The strategy to be adopted will also be closely related to the market channel selected. If the product is to be sold through an existing processor, or under the buyer's

label, distribution and promotion will be simplified (though at the expense of dependence on one outlet). If, on the other hand, the firm is to sell under its own label, a distributor must be found, a territory decided on, and a promotion program established.

If these and the many other questions involved in feasibility work are to be satisfactorily answered, a lot of work may well be involved. It's not a job for one man. Rather it will take a team effort—involving local leaders, Extension workers at the county and State level, and researchers from agricultural economics, engineering, and food science. In addition, assistance can often be gained from other areas of government and from private industry. By working together such a team can help rural groups to avoid costly errors in considering feasibility projects, and do a better job of setting up and operating a facility.

Iowa State University Photo



Shown here are twin separators in a new skim milk drying plant built as a result of merger of two Iowa firms.

A subcommittee of the Western Extension Marketing Committee, in cooperation with the Federal Extension Service, has prepared two publications to assist Extension personnel carry out their work in feasibility. They are: *Marketing Facility Feasibility* (a leaflet to aid in screening proposals at the local or community level), and *Economic Considerations in Determining Marketing Facility Feasibility* (a comprehensive checklist to be used jointly by county and State workers).

Both have been made available to all States. In addition, the Federal Extension Service has prepared a bibliography of *Economic Studies Pertaining to Processing Plant Feasibility*. The Southern Extension Marketing Committee is also preparing some aids in this area. ■



It should be noted that the approach described is only a starting point for the development of action programs by the people within and outside of the development area. Site selection, obtaining investment capital, selection and training of employees, and farm production of raw products are all decisions which are not completely considered in this approach.

### Groups involved

Two types of firms are involved in the development of a processing industry in a given area: the processing firm which will assemble, process, and distribute the products; and the farm firm which will grow the raw products. The comprehensive approach presented here permits these two types to be considered at the same time in order to determine if conditions exist or could be created so that the establishment of a processing facility would be a profitable business undertaking.

People who might invest their money in a processing facility need sound information on the probable returns on their investment. They also need to be assured that farmers will profitably adjust the production of products to be processed and their marketing patterns to permit the operation of the processing firm at some profitable volume.

Farmers, on the other hand, need assurance that production is physically and managerially possible, given their resource conditions. The prices which they will be paid for their products should also provide competitive net returns for the land, labor, and capital used to produce them. Once the investors and farmers are assured that the operation of the processing plant and farm production are physically, managerially, and financially sound, then carrying out the various parts of the project can only be restricted by considerations other than economic or technologic.

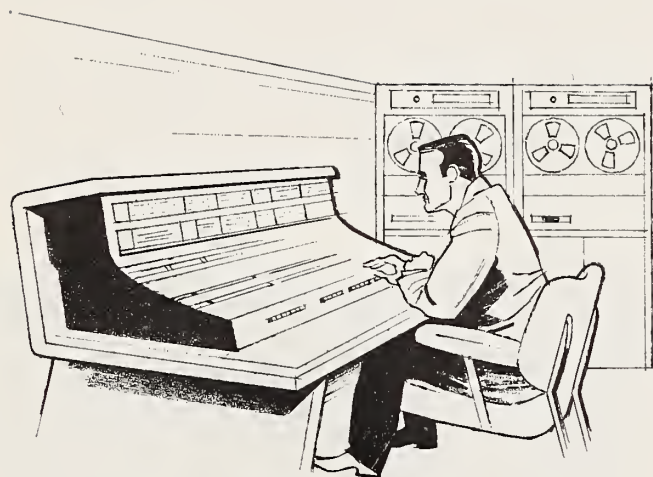
### Analytical process

The comprehensive approach involves calculation of plant price and farm budgets. The process is outlined below; further details may be found in an article titled "The Integration of Price and Cost Analysis in Developing Processor-Producer Feasibility Studies" in the August 1964 issue of the *Journal of Farm Economics*.

**Plant Price.** Determining the price which the processing plant can afford to pay for raw products is the basic ingredient in the analytic approach. Raw product price per unit is regarded as the amount of money remaining after all other marketing service charges have been paid, divided by the amount of raw product used. Marketing service charges include: Finished product transportation and storage charges, selling costs, all processing costs (including specific assumptions concerning pack-out end finished product quality), any assembly costs, and a target rate of return on initial investment. The usual interest charges are computed as part of the processing plant operating costs.

Most of these calculations are done by computers which greatly simplifies the amount of work involved.

The procedure for determining the price which the processing plant can afford to pay for raw products is as follows:



## Plant Feasibility... a comprehensive approach

by ROBERT D. DAHLE  
*Firm Management Specialist*  
*North Carolina Extension Service*

**E**XTENSION workers are often requested to help groups determine whether a marketing facility in a specific area will be profitable. Most often the request comes from a group of persons forming an action group (such as an area development association or an investment organization of a local Chamber of Commerce) who are interested in increasing employment opportunity and income levels.

The analysis which the group requests should be comprehensive and soundly formulated so that the long-run effectiveness of the efforts can be predicted with some degree of confidence. The approach outlined in this article indicates how to determine general economic feasibility under various given sets of conditions. It is not designed to determine the profitability of a specific facility. Food processing will be used for illustrative purposes.



(1) The costs of plant operation (exclusive of raw product costs and profit on invested capital) for various sizes of plants operating various lengths of seasons are computed.

(2) The price per unit of finished product f.o.b. plant for a specific type of mix of finished product is estimated.

(3) Rates of profit on invested capital are computed using the assumed set of target profit rates.

(4) The annual revenue received by the various-sized plants operating different lengths of season is computed by multiplying the estimated price for finished product by the units of finished product processed.

(5) A raw product "fund" is computed for each plant size for each length of season and for each rate of profit on invested capital. The fund is derived by subtracting all operating costs (exclusive of raw product costs) from total annual revenues.

(6) The derived demand prices for raw product are computed by dividing the raw product fund for each set of conditions by the volume of raw product necessary to supply the plant for each set of conditions.

Multiple-product, as well as single-product situations, can be handled with this type of analysis by budgeting in additional building and equipment investment and the operating costs for the additional products. The price for all raw products, but one, would be fixed in order to compute the price which the processing plant could afford to pay for a given raw product.

The Southern Extension Marketing Committee will soon publish a series of publications containing single- and multiple-product plant analysis data. Present publications in this series include an analysis of snap bean canning, blueberry freezing, and strawberry freezing. A publication on sweetpotato canning is under preparation. This series is intended for use by area development groups and will be distributed by State Extension Economic specialists.

**Farm budgets.** A second ingredient in the comprehensive approach to plant feasibility is the preparation of a farm enterprise budget for each raw product under investigation. These enterprise budgets should express the relationship between returns to land, operator labor, and management and specific production practices and yields. The use of detailed enterprise budgets enables the person making the feasibility study to consider various conditions of raw product production, such as different levels of fertilization or irrigation.

### Usefulness of the approach

Information on the farmer's ability to produce the raw product and the processor's ability to convert and sell the finished product must be meaningfully related to establish sets of feasibility conditions. By bringing to-

gether information on the price which the processing plant can afford to pay and the price which farmers must receive, mutual profitability is determined.

In North Carolina we have used this approach to evaluate the feasibility of developing a blueberry-strawberry freezing plant in northwestern North Carolina. A similar approach was used to determine the chances of success for a sweetpotato-snap bean canning operation in northeastern North Carolina. Both of the studies emphasized the importance of mutually satisfying the economic considerations of the plant and the farmer.

A similar approach has been used in evaluating the potential for a poultry deboning plant and tomato canning operation in the southern piedmont area of the State. Our intention is to blanket the State by continuing to investigate the processing feasibility for products which show some production potential. As part of this effort, other studies are under preparation by Extension personnel, ARA contract personnel, and Federal and State research workers.

We have also suggested to processors that they might wish to use this information to determine the price stability or risk exposure under various assumptions concerning raw product yields. As yields increase, the raw product price necessary for a profitable farm operation declines. Thus, the price that the processor would pay for raw product would depend on his ability to bargain with the farmer within the range of prices that satisfies the minimum profit conditions of both parties. This type of analysis can be used by plant managers to simulate the financial results of different kinds of operating conditions with respect to market prices for the finished product and raw product procurement costs.

An action group project growing out of a feasibility study similar to the one described here, would involve interviewing growers to determine whether or not they would grow the raw products under specific price conditions. Action groups would also work with prospective investors in solving problems in the acquisition of capital; hiring and training production workers; and developing and letting contracts, when utilized, for raw products. Supplying the organizational structure and the motivation necessary to implement the new production activities would be one of the unique contributions which the action group would make after being supplied with information contained in the feasibility study.

People make decisions on the basis of economic and noneconomic considerations. The approach presented in this article is intended to tie together the major economic considerations to be used in predicting the long-run economic effectiveness of a development effort. This article has attempted to present the answer to the economic question—*what will it pay people to do under certain assumed production and marketing conditions?* The big question—*what will people do in a given situation*, involves both the answer to economic questions and their appraisal of noneconomic considerations.

This comprehensive approach is not a cure-all for the problems which face people interested in evaluating the feasibility of a marketing facility. But it does provide a point of departure for a sound long-run development program. ■



# Combining Facilities For Greater Efficiency

by J. ROBERT STRAIN  
*Dairy and Poultry Marketing Specialist*  
*Iowa Extension Service*

**P**ROCESSING plant feasibility work may bring to mind the study of an area not now being served with processing facilities. But in Iowa, some of our most needed processing plant feasibility work has been for areas already containing from ample to excessive—though outmoded—processing facilities. Feasibility work here centers around the need for combining present volumes into fewer plants.

Many new cost-reducing techniques and equipment have been introduced since most of our agri-business plants were built. However, these often require plant volume increases before the potential cost reductions can become reality. In these cases, the necessary prerequisite for increasing returns to farmers for their product is the combining of the volumes of two or more organizations.

The usual reaction of processing organizations to this need for volume has been to initiate aggressive procurement activities to "raid" the volume from neighboring competitors. When successful, this approach results in "involuntary consolidation" at the expense, and often the demise, of a nearby organization. But it is a slow, costly unorganized, and uncoordinated way to combine volume.

## Growth by merger and consolidation

Consolidation or merger offers a relatively easy and systematic way for farmers who own and operate cooperative processing plants to form larger units. All farmers involved can begin enjoying the economies of combined volume from the date of combination. Excessively wasteful, duplicated investment can be avoided. Equipment additions and building modifications can be made more efficiently. Interassociation conflict and resulting hard feelings between producers and board members are usually less intense when two groups have agreed to combine.

However, many areas of adjustment soon become involved in any plant feasibility work requiring a merger or consolidation. For instance, in towns which are losing a plant the attitudes of Chambers of Commerce and businessmen in general, often become serious obstacles for economically-sound planning and action.

The problem of combining boards of directors, reducing the total number of board positions available, and eliminating some positions of local prestige can be a serious problem. Personnel adjustment must be made, usually with fewer employees. Sometimes employees must move to another town in order to continue working. Furthermore a shift in thinking from thoughts of rivalry to thoughts of co-partners may be difficult.

In some cases, it may be necessary to close plants in order to permit greater efficiency in those that remain in operation. In other cases, a new, more efficient plant may be needed to replace outmoded facilities. In both instances, this usually requires a combining of volumes of two or more organizations before the potentially more efficient processing of products is possible.

## Use of existing facilities

A recent example of organizations combined for more efficient use of existing facilities is Consolidated Co-operative Creameries at Whittemore, Iowa. It resulted from an Extension-assisted merger in 1958 of five organizations into one. All companies were churning butter and selling skim, three were bottling milk, and two were freezing ice cream. The plan was to operate two plants. All the bottling and ice cream freezing was centered in Lone Rock and churning was moved to Whittemore.

Almost immediately after combining the churning operations, the new organization (as were all manufactured milk plants) was faced with the drop of 13c per hundredweight in the support level for 3.5 percent manufactured milk. But the increased efficiency permitted a continuation of the previous Whittemore pay price for milk in spite of the drop in value of the finished product. This was an increase in price for those who were previously members of the other four organizations.

Since then, two more organizations have joined Consolidated. Now, the butterfat of seven previous organizations is being churned in a plant that once processed the volume of only one organization.

## Replacing existing facilities

One of Iowa's earliest examples of combining creamery organizations for greater processing efficiency was a 1953 consolidation of two firms into a new organization, the Maquoketa Valley Cooperative Association.

Interest in combining apparently grew out of an Iowa State University plant efficiency research project which included these two plants. Prior to consolidation both firms were churning butter and selling skim wherever they could; one put some skim into a cottage cheese operation. The plan was to install one drying facility for the skim milk of the two organizations. This was not done at first, but it soon became apparent that it would be more efficient to do so.

A new spray-drying plant was built capable of handling a million pounds of milk a day. Since then, two co-operatives have joined with Maquoketa Valley. The plant is now running at full capacity during most of the spring and summer months. Processing costs are in the neighborhood of two-thirds of the State average cost per hundredweight.

In these and other cases, it was necessary to combine the volume of two or more organizations to increase the returns to farmers. Merger, consolidation, or similar forms of organizational unification have proved quicker, less costly, more organized, and more effective methods of combining volumes than competitive growth by overpowering neighboring organizations. Thus, organizational unification may be a necessary phase of plant feasibility work. ■



# state experience in feasibility studies

The preceding articles presented many of the principles utilized in feasibility work; in this section we present brief sketches of feasibility projects that have been conducted in several States. The seven projects reported represent different approaches and varying stages of progress. We have, however, asked each author to stress a particular aspect of his work. The three main areas emphasized are (1) raw materials (supply), (2) markets (demand), and (3) the facility itself. The reports will be presented in this order.

## evaluating raw product availability for . . .

### Vegetable Processing in Florida

by KENNETH M. GILBRAITH  
*Vegetable Marketing Specialist  
Florida*



Florida Agricultural Extension personnel have recently been involved in two projects concerned with feasibility of establishing vegetable processing facilities. Both projects stemmed from requests for assistance by groups of new firms in areas where the processing of vegetables has been of no commercial importance.

During the two studies contributions were made by representatives of many agencies, both public and private. The requests were initiated through county Extension personnel and ultimately involved five county agricultural agents, two State Extension specialists, and representatives of the State Department of Agriculture, Florida Development Commission, U.S. Department of Agriculture, Florida Power and Light Company, and two Chambers of Commerce. While the Florida Agricultural Extension Service assumed leadership throughout the first project and during the initial stages of the second, completion of both would have been most difficult without the cooperation given by other agencies.

The nature of the first project was such that it should actually be considered as a basic step which pre-

cedes detailed feasibility work. The interested group was mainly concerned with developing information pertaining to vegetable processing opportunities in a broad, general sense. This study resulted in the publication of two reports containing information on soils, climate, water resources, labor, raw product availability, utilities, financing, taxation, transportation, potential markets.

One report views processing opportunities from a Statewide standpoint while the other contains similar information for a three-county area in north central Florida. Copies are available.

#### Processing feasibility

The second project was a full-scale study of the feasibility of establishing a vegetable canning or freezing plant in Jackson County. As mentioned above, Extension assumed leadership of this study only during the initial stages.

Extension's role dealt with raw product availability and consisted of three major steps.

(1) A State specialist in vegetable production worked with county personnel and first determined the production potential from the stand-

point of physical limitations.

(2) Extension economists then compared the area's competitive position on a commodity-by-commodity basis with other areas in the Southeast where production of vegetables for processing exists on a relatively large scale. This was accomplished by using average prices paid for the raw product by processing firms in the Southeast and vegetable production costs in the Jackson area.

(3) Consumption trends were then examined for the various processed vegetable commodities in Southeastern markets. This procedure provided information that was most helpful in determining the most feasible product mix.

Because a full-scale evaluation is an involved process, financial assistance was obtained from the Area Redevelopment Administration and a formal study was conducted by USDA's Economic Research Service. (F. W. Williams, *A Vegetable Processing Plant in Jackson County, Florida*, U.S. Department of Commerce (with ERS, USDA), ARA Casebook No. 2 November 1963, 20 pp.) Aside from the contributions made by Extension personnel, the ERS economists devoted an additional 1½ man-years to the project.

## Problems involved

The major problems in raw product availability which have distinct bearing on the success of a vegetable processing plant in Jackson County, Florida may be typical of those in others parts of the country. They are discussed below.

(1) Most of the producers in the area look upon the production of vegetables strictly as a means of supplementing income from more important farming enterprises.

(2) Many of the producers view the processing facility as an alternative outlet for existing vegetable production to be supported when fresh market prices are depressed.

(3) Under the existing pattern of production a supply large enough for efficient plant operation would have to be obtained over a relatively large geographic area.

(4) Closely associated with supply density in a geographic sense, the size of individual production units poses problems. Generally speaking, vegetable production on individual farms is on a very small scale. This would hamper the use of labor-sav-

ing machinery and make it most difficult for growers to compete with those in most other processed vegetable areas.

Final results of the Jackson County study indicate that a successful operation would require a much larger investment than was originally visualized. Plant and equipment costs alone are estimated at \$350,000 for a canning firm and \$860,000 for a freezing firm. Faced with a situation in raw product availability such as discussed above, prospective investors in a venture of such magnitude will likely be difficult to find.

## Outlook

Many people, this writer included, are optimistic about the prospect for future growth of vegetable processing in the Southeast. Results of the Jackson County study, however, lead one to the conclusion that a large share of this growth will take a place through the expansion of existing firms in commercially important vegetable producing areas rather than through the establishment of new firms in areas where vegetable production is relatively unimportant. ■

## State specialist role

Gerber first contacted me and the Extension horticulturist in August 1961. They requested assistance in making a study to determine the possibility of the firm being able to obtain sufficient quantity and quality of certain fruit and vegetable products in the State. We supplied information about crops, climate, production and marketing experiences of growers, prices, the present processing industry, cost of certain crop production, interest of growers, and many other facts about the area.

Educational meetings with growers and Gerber representatives began in February 1962. At the meetings county agents discussed probabilities of profitable production and marketing of fruits and vegetables for this firm. Gerber representatives attending the meetings were able to determine the interest of the prospective growers.

In September 1962, Gerber representatives and county agents visited fruit growers in several areas of the State to discuss contracts for apple, plum, pear, and cling peach production. In January of 1963 and the winter of 1963 and 1964 a start was made in planting the fruit needs of Gerber Products Company. About 70,000 cling peach trees, 10,000 apple trees, 30,000 pear trees, and 8,000 plum trees were planted in four areas of Arkansas.

## County-level assistance

One example of how information was developed and supplied on a county basis is provided by Oliver L. Adams, County Agent in Carroll County. Adams worked through his County Development Council in discussions about the need for increased incomes and improved levels of living in the county. They decided that one answer was to produce and market fruit crops. With the assistance of leaders in the county, Adams made a detailed survey of fruit production and the interest of potential growers. As a result, 20 growers were selected to plant 15,000 pear, plum, and apple trees, or about 150 acres of fruit under contract to Gerber.

This is only a beginning in Carroll County and more acreage will be set in fruit as experience is gained and the processing firm decides that more volume is desirable. Apple produc-

# lining up supplies for ... A New Processing Plant

by ROY E. LAMBERT, *Marketing Specialist  
Fruits and Vegetables, Arkansas*



In 1965 Gerber Products Company, a worldwide firm in the baby food business, will begin processing Arkansas-produced fruits and vegetables in a new \$10 million plant located at Fort Smith, Arkansas.

The plant will employ 700 to 800 people, many growers will produce fruits and vegetables under contract, and the acquisition of this industry will mean many other economic benefits for the State and the area.

The Arkansas Agricultural Extension Service played a major role in providing information needed by

company personnel before a decision was made to locate the plant in Arkansas. County agents conducted most of the educational programs designed to determine the interest of growers.

In addition to information relating to the feasibility of producing and marketing fruits and vegetables, Gerber also asked the Agricultural Extension Service to help in other ways. An example of this is the assistance given in arranging for conferences with other agencies relative to information on water supplies, sewage disposal, taxation, labor, transportation, and available locations.





Odell Stivers, Marianna County Agent (left), discusses pruning methods for pear tree with the fruit grower and the representative from Gerber.

## evaluating the market for... A Proposed Livestock Auction

by CHARLES RUST, Montana Extension Marketing Specialist  
and ALLEN NELSON, Flathead County Extension Agent



A growing number of rural communities in Montana are showing interest in economic development. They are becoming

more aware that their local economies are sagging or at least not keeping pace with other areas, that young people lack job opportunities, and that the rate of population growth is not what it should be.

As these deficiencies become evident, many communities seek the cooperation of the Extension Service in making an appraisal of their resources and their potential.

An example is the city of Kalispell, County Seat of Flathead County. For a good many years Kalispell's economy, has been based largely on lumbering; tourism; and an agriculture which consists mainly of small farms, some dairying, and beef.

However, in recent years the lumber business has not been as steady a source of employment as it once was and the county has been plagued with chronic unemployment.

The Board of County Commissioners was well aware that something needed to be done to boost the community's economy. The board stated, "Problems of underemployment in our county and the lower economic growth trends of the area place severe strain upon county financial and physical resources. It is very evident that the development of local resources is essential to provide permanent and year-round employment so important to the well-being of this county."

The county Extension staff said that "there is a real opportunity for the development of marketing and processing industries for agricultural

tion is already of commercial importance in Carroll County and some of the existing varieties will also be marketed to Gerber.

Similar work was conducted by county agents in Johnson, Howard, Pope, Cross, St. Francis, Lee, and Sebastian Counties.

Several vegetable crops will also be produced in Arkansas for Gerber.

In all the educational work it was emphasized that high-quality raw products would be needed to start and maintain this important market.

When Gerber Products Company announced its decision to locate this \$10 million processing plant in Arkansas, the Agricultural Extension Service felt that its educational work had considerable influence in this determination. Extension realizes that the real work with this firm is just beginning and the big responsibility will be in assisting them and other firms to obtain the high-quality fruits and vegetables needed for processing. ■

products." It also stated that it was prepared to work with agricultural groups in analyzing their problems and taking inventory of the resources which might be used to solve their problems.

In searching for ways in which the local economy might be boosted, the Agricultural Committee and the Industrial Development Committee of the Kalispell Chamber of Commerce made a preliminary survey of the livestock marketing situation in the Kalispell market areas. These committees felt there was a need for a livestock auction market.

With this in mind, the committee approached County Agent Allen Nelson and requested his assistance. Their primary concern was what the next step might be in terms of accurately evaluating the livestock marketing situation in the Kalispell trade area, and what procedures might be followed in determining the opportunities for developing a livestock market facility.

Using materials developed by the Western Extension Marketing Committee in reference to market feasibility work, Nelson provided assistance to these groups. He also contacted the State Extension staff and the Agricultural Experiment Station.



At a meeting attended by all concerned, it was pointed out that the Kalispell market area has no unique characteristics that indicate a livestock market should develop within the area. At the same time, it had no unique characteristics that say a livestock market should not develop.

It appeared that a more accurate appraisal of the situation would involve some detailed study and considerable time and effort by an experienced person. One who could readily avail himself of other resource people who are familiar with this kind of a market and with formulating a feasibility report.

The Kalispell Chamber of Commerce agreed to partially finance a feasibility study. Pacific Power and Light Company agreed to furnish the Chamber with the funds that would contribute to such a project. Jack Lackman, Graduate Research Assistant at Montana State College, was assigned to work on the feasibility study. Dr. Clive R. Harston of the Montana State College Agricultural Economics Department served as staff advisor. County Agent Nelson and Extension Marketing Specialist Charles Rust were involved as additional resource personnel.

The cooperation between the committees of the Kalispell Chamber of Commerce, the Flathead County Extension Agent, the Extension Marketing Specialist, and the Experiment Station has greatly facilitated development of this feasibility report. We have found little or no problems working in this environment which, from the outside, might appear to be somewhat cumbersome.

One of the most important phases of the feasibility report were the methods developed by Lackman whereby he estimated the potential source of the raw material (livestock) that would be available for a potential auction market located in the Kalispell area. He estimated the market for livestock in terms of who would buy and what kind of livestock they would buy. He also listed the advantages and disadvantages as well as contributions that a livestock market would make to the community of Kalispell in terms of employment and economic gain.

The feasibility study provides an estimated minimum volume neces-

sary to operate economically in the Kalispell area. It may be argued that smaller volumes (than the estimated minimum) could be economical by reducing the physical facilities and operating costs. However, the feasibility report emphasizes that if physical facilities and services are reduced, the market could attract less business, and producers may be more likely to seek other marketing channels.

The feasibility study has provided a sound economic base from which the economic development commit-

tee can operate. It is no longer limited to statements of someone's opinion. Facts and figures, based on research can be quoted to prospective auction market operators.

With this kind of background the evaluation of resources in Flathead County has continued and various groups are taking part in this activity. These groups are keenly interested in their community and in the economic opportunities that are available—or should be available to the Kalispell market area. ■

## finding better markets for . . . South Dakota Butter

by LEONARD BENNING, *Extension Marketing Economist, South Dakota*



The dairy industry of South Dakota has for a number of years been going through a turbulent transitional period. Many marketing and structural changes have occurred. Among these have been shifts in the type of product marketed by the producer (whole milk rather than farm separated cream), a decrease in the number and type of processing plants and marketing changes.

South Dakota has a limited market for fluid milk because of low population density and great distances from large population centers. Consequently most of the milk is sold for processing. To increase income from this outlet it is necessary to improve quality and reduce costs—on the farm as well as in the processing plant and marketing.

The conversion from cream to whole milk processing noted above created serious problems in many communities where the local cream-

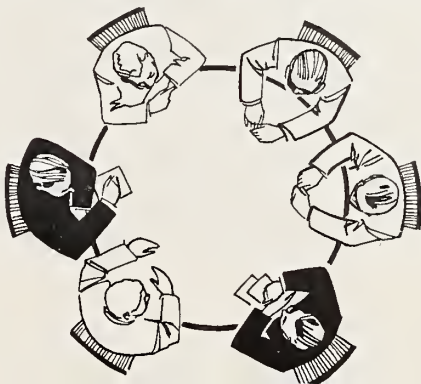
ery was a major source of economic activity. In many of these communities, the local plant was not able to make the necessary transition. Therefore, the diversion of milk supplies to plants outside the area further reduced the competitive position of these local creameries. Reduced volume and increased unit costs for the remaining supply of milk left little or no opportunity for many of these plants to remain in dairy processing.

In searching for ways and means of increasing efficiency, seven such plant operators in the State asked the South Dakota Extension Service to study the feasibility of reorganizing and establishing a new centrally-located butter-powder facility to serve their area. The study which began in 1960 included all of the commonly accepted procedures and methods used in determining product and facility feasibility.

### Marketing methods studied

In light of the long-run downtrend in consumer demand for butter, however, considerable emphasis was placed on determining the efficiencies that might be gained from various new marketing methods over the traditional method of wholesaling.

Efficiencies of selected butter marketing agencies as related to different organizational structures, operating method, merchandising methods,





and channels of distribution were studied. It was noted that creameries received very little more for high-quality butter than for low quality. Also, they received no more for well-flavored butter than for flat-tasting butter. There is considerable evidence that many consumers prefer high-quality, well-flavored butter. Yet the marketing mechanism did not reflect these consumer choices back to creameries and dairy farmers.

Most buyers purchase butter on the basis of U.S. grades or their own grade specifications. However, in many cases butter of different qualities is not segregated. Some of the higher-quality butter is allowed to deteriorate, and a large proportion of the butter reaching consumers is not uniform in quality or flavor. The longer and more involved the marketing channel, the greater the likelihood of these practices.

If as was indicated, many consumers have a preference for high-quality, well-flavored butter, at least a partial solution to the problem lies

in getting to consumers the kind of product they prefer at a price they are willing to pay. The indirect channels of distribution do not do this.

### Changing marketing pattern

Interviews with dairy product purchasing agents of two National retail food chains revealed that changes in purchasing methods and distribution patterns were being initiated in their organizations. *Transportation and labor costs in packaging* were the major factors encouraging these retail chains to adopt new programs.

With respect to butter, the chains planned a long-range program to increase purchases from midwestern States such as South Dakota for distribution through West Coast stores. Meetings were held to acquaint processors with the milk quality, quantity, and purchasing schedules desired by the chains.

Although the quantity of butter presently processed, packaged, and marketed through these outlets from the State is still relatively small, in-

dications are that about half of the State's total butter production will be marketed directly through these retail chains during the next 3 to 5 years.

These markets have provided dairy plants in the State the opportunity to improve returns by processing for consumers the kind of product they prefer and to provide employment opportunities for a greater number of persons by expanding into the packaging of the finished product. Through direct marketing to retail stores, the milk plants hope to maintain quality of product, to have a close enough contact with consumers so as to reflect tastes and preferences, and to eliminate some of the inefficiencies in distribution.

The success of this undertaking could mean an increase in income to South Dakota farmers, provide a stability of income badly needed in this area of high-risk crop farming, and provide additional employment opportunities for a greater number of people. ■

## estimating costs and returns for ... A Sweetpotato Flaking Plant

by ROBERT P. JENKINS, *Fruit and Vegetable Marketing, Virginia*



Across the Chesapeake Bay from the mainland lies the Eastern Shore of Virginia. The economy of this region is based largely on the production of vegetables and field crops.

Sweetpotatoes, one of the major crops in the area, are well adapted in terms of yield and cultural requirements. There is, however, a problem in marketing large or misshapen roots.

A process for flaking sweetpotatoes has been developed which is adaptable to these roots. The success of

potato flaking and the increasing demand for convenience foods added to the favorable marketing prospects.

Accordingly, Eastern Shore growers and business leaders, through the Northampton Marketing Cooperative, Inc., sought information about the feasibility of sweetpotato flaking. To coordinate the project, they organized Virginia Agricultural Products, Incorporated (VAP). All subsequent flaking plant activities have been through this stock corporation.

Since the feasibility study involved many considerations, several Federal, State, and county agencies made vital contributions.

### Estimating costs

Costs are usually classified into fixed and variable components.

**Fixed Costs.** Fixed costs are those incurred whether the plant is oper-

ated or not. Facilities are generally fixed and must be depreciated over a period of time. Fixed costs in this project include land, buildings and equipment, and salaried personnel.

After considering physical processing facility requirements, a building housing a local tomato cannery appeared to be adequate, with certain modifications.

The building housing the tomato canning plant was inadequate without certain structural modifications. The construction of lye and waste disposal lagoons was also required. Cost of these modifications was estimated from information provided by the Virginia Tech Department of Architecture and by local contractors.

The USDA Southern Utilization Laboratory developed equipment cost estimates based on its pilot project. Because of new technological development, these estimates were modified from information secured from manufacturers, used equipment dealers, and trade publications.

The cost of managerial and secretarial help was based on the need for experienced managerial help.

**Variable costs.** Costs which vary with the amount of product processed were based on a production goal of

\*Assisted by F. W. Bell, Marketing Agent, Virginia Department of Agriculture; Roy Nottingham, Northampton County Agent; and John Rodgers, Accomac County Agent.



500,000 pounds of flakes per season, determined by members of VAP. This goal was based on a study of market conditions and warehousing costs made by the Virginia Department of Agriculture. Since two types of flakes could be produced, estimates of variable costs for both dense and bulky flakes were determined.

The number and type of workers required was determined from: (1) functions performed, (2) equipment operators required, (3) operating requirements of the pilot plant of the Southern Utilization Laboratory, and (4) comparison of requirements for similar functions in conventional processing plants using the latest technology.

It was important to consider the cost for fringe benefits and taxes which require employer contributions, such as social security and unemployment insurance.

The production goal was related to the time required to produce a given amount of flakes, as established in the pilot study. The wage rate times the number of hours the plant must operate, plus considerations for extra cleanup time, yielded the total yearly variable labor cost.

The amount of flakes obtainable

from a given amount of sweetpotatoes was determined from the pilot studies. It was decided that 85,000 bushels would be needed to meet the production goal. Estimates by county agents and others showed that 38,000 bushels would be available as pick-outs from the fresh market packing operation, and could be bought for about 1c per pound. The other 50,000 bushels would be bought on the open market or contracted for about 2c per pound.

The amount of other ingredients was determined by Experiment Station food technologists and a technical consultant retained by VAP.

Packing costs including cans, cases, and labels were readily computed for the two types of containers.

Insurance, utilities, and miscellaneous items were figured at 10 percent of the production cost of bulky flakes.

### Forming a budget

After the above costs were obtained, budgets were prepared listing each cost when both new and used equipment were used to process either bulky or dense flakes, and with 5 and 10 years depreciation schedules on equipment. The addition of interest charges to the fixed and vari-

able cost gave a total cost to produce the flakes; amortization of the debt was added to give the total income needed to meet all obligations.

A study of market conditions indicated the selling price which might be expected. When the selling price, less selling costs, was higher than income needed to meet all obligations, the firm could be operated profitably.

Of course there are hazards which must be considered such as the possibility of an insufficient supply, excessive raw product prices, or oversupply of the finished product. Amortization was also taken into account. The budgets attempted to reflect this by means of discounts for uncertainty.

There were other considerations not reflected in the budget which are important: (1) the possibility of economy by forming the flaking plant around an existing sweetpotato canning operation; (2) the effect on the quality of the fresh market pack by removing the temptation to include marginal roots; and (3) the effect on the growth of the industry in the area due to this better market.

After weighing all of these factors, VAP has decided to go ahead and start processing this fall. ■

## planning and locating facilities for . . . The Formula Feed Industry

by ROBERT W. SCHOEFF, *Flour and Feed Milling Specialist, Kansas*



Increased grain sorghum production and livestock feeding in Kansas and other Plains States has stimulated a great interest in remodeling or building of new custom feed mills.

Kansas State University, through its contract with the Federal Extension Service on Marketing and Utilization of Formula Feeds, has pioneered in the area of Feed Plant Feasibility.

To assist management of grain and feed firms who were considering remodeling or building new mill facilities, a feasibility checklist was developed. Essential to the success-

ful planning of any new facility is the careful and realistic consideration given by management to these key areas of the checklist: Objectives, sales volume, facilities, location, costs and returns, and feasibility.

This checklist served as the core of materials presented at two feed plant feasibility workshops. Managers and owners attending the 2-day workshops were urged to develop long-range plans. It was explained why and how they should go about making a feasibility study of their need for new feed mill facilities.

A market survey form and other materials were developed by the

Formula Feed Extension staff to aid management in their feasibility analyses. A brochure, *Determining Feed Plant Feasibility* was prepared from the workshop materials.

### Need for new facility

While the more popular and rewarding experience comes from making a feasibility study that culminates in new construction, not all feasibility studies should end in the planning and building of a new facility. The decision may be made not to build at all!

Here is an example. Don Spitze, County Agent for Stanton County,



located in southwestern Kansas, requested that we meet with a selected group of local business and farm leaders to discuss the feasibility of building a new custom feed mill.

A long evening was spent in active discussion of all phases of the feed business, and local crop and livestock trends. There were many opinions and few facts. A market study was recommended to determine (1) if there were sufficient sales potential in the area and (2) if farmers would use the custom milling service if it were made available.

Farm survey forms and a suggested pattern for surveying a representative sample of 200 farms were made available to the county agent. The agent tabulated the data and prepared the figures for distribution.

The survey data confirmed that there were too few livestock and too few interested farmers to justify the construction of a feed mill. No further action has been taken in this county. This was a sound decision. Many farm supply firms would not be in financial trouble today if they had first made a feasibility study.

### Potential for new mill

In order to plan a mill of an efficient and economical size considerable detail is necessary on production and sales volume in physical units and dollars. A typical example was a firm that we worked with several years ago.

The manager felt his present mill facilities were obsolete, inefficient, and lacking in capacity to meet growing needs. With the help of the Federal Extension Service, a feasibility study was initiated. There were no records available to show: (1) the total volume of feed manufactured and custom mixed; (2) the breakdown of how much was received for custom grinding and mixing; or (3) the quantities of various ingredients purchased annually.

After much work on the part of the manager, sufficient data were assembled which indicated that it was more feasible to build a new feed mill rather than remodel the existing facilities. A new mill costing approximately \$50,000 was tied into an existing warehouse and pelleting facility. With the assistance of an aggressive sales program, the firm

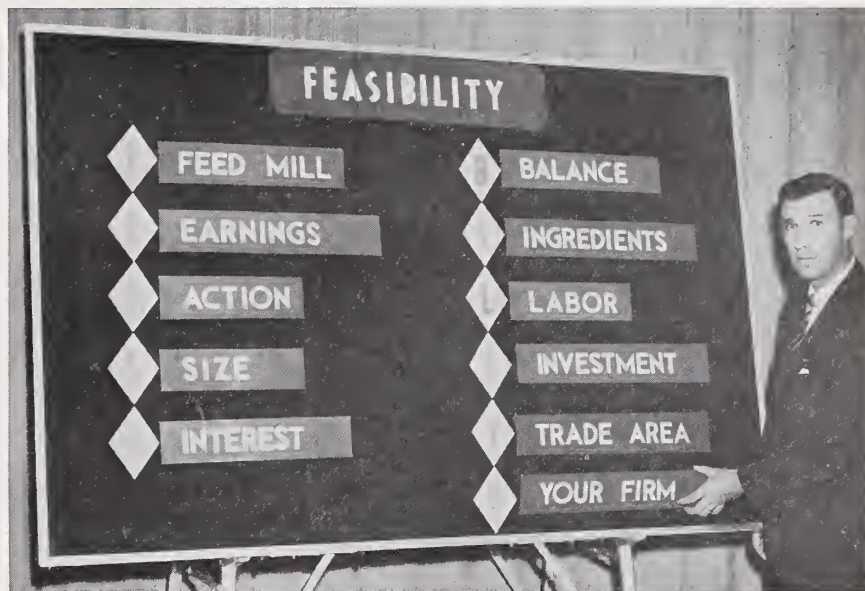
has doubled its feed tonnage; mill labor costs have remained the same. The employees' work is not as difficult because all major ingredients are handled in bulk rather than bag.

As Extension recommended, the manager has changed his accounting system to provide better information on production volume, income, and expenses by departments. He is having his auditor make quarterly profit and loss statements for better management.

Location of the mill in relation to the market it will serve is always stressed. There is danger today in

should be done and provided guideline material. Help is given in locating and interpreting data, in outlining mill specifications and alternatives; but the final decision is always the manager's!

The Extension specialist draws no plans. He does help get a flow sheet prepared, but avoids making cost estimates. The wide range in prices of equipment and materials and complexity of the plans which requires knowledge of mechanical, electrical, and structural engineering makes it unwise to offer advice on probable costs. A file is maintained of new



locating in a small, declining community where other business services are lacking. Increased pressure from city residents to eliminate dust and noise nuisances through stricter ordinances makes it imperative that mills be located upwind from residential areas. The mills should also be in commercially-zoned areas or far enough away from residential property that there will be no problem for at least 10 years.

### Advisory procedure

Requests for assistance have come mostly through the county agent. Several have come from managers who attended meetings conducted by Formula Feed Extension specialists.

Kansas Extension specialists have made no feasibility studies as such, but rather have shown the manager and his directors why and how it

mills with key features and total costs for reference purposes. At this point a list of competent mill designers and contractors is made available so cost estimates can be obtained and feasibility decided.

Based on experience in Kansas, where approximately 75 new mills have been built at a cost of \$7.5 million, the Extension specialists recommend that the buyer get a complete job from one contractor.

Experience has shown that managers become so involved in planning and building new facilities that other equally important factors are overlooked! Considerable educational effort is also given to the need for: Competent personnel, additional operating capital, an effective sales program, and a managerial accounting system. ■



## financing and managing...

# The Formula Feed Mill

by R. E. PAGE, Grain Marketing Economist, Oklahoma



Problems in financing and managing a new feed mill are no more unique to this business than any other small

business. In determining the feasibility for establishing a feed mill, financing and managing are responsibilities that enter the picture immediately.

For purposes of this article it is assumed that the project is feasible at least by the interested parties that will share in the investment. The next question that needs answering is "Will owners invest enough?" This question needs answering whether this business be a corporation, co-operative, partnership, or an individual ownership enterprise.

Some of our new ventures in feed mills in Oklahoma have failed because there was not sufficient capital committed prior to the commencement of operations. Some of our firms have failed because fixed assets were not acquired, and there was not enough working capital to carry on operations until the firm was able to generate its own adequate flow of funds. Capital commitments must be firm since management cannot depend on vague promises—and management has great difficulty in seeking additional capital when its back is against the wall.

In many instances the people who start feed businesses underestimate their financial needs. Too often, in anxiety to get going, a person or persons will launch an enterprise without enough money to adequately finance the inventory. Inadequate financing greatly magnifies the risks. The first setback usually spells insolvency.

### Fixed capital requirements

Planning and budgeting capital requirements are a necessary part of the feasibility study for a new feed mill.

Fixed capital requirements should be determined by sizing the plant and equipment. Where will this capital be obtained? If from sale of stock, how much capital has already been pledged? What percentage of total pledges will be made good? If financing is to come from several agencies, who has the first mortgage and what percentage of the total is each lending? What rate of interest is being charged? When do monthly payments begin and how much are they?

Below is an example of estimated fixed capital requirements to meet the objective of a \$52,000 feed mill in Oklahoma.

Estimated cost of equipment and facilities to meet the objective are as follows:

	Dols.
Custom feed mill with installation and freight.....	25,332
Grain feed tanks for feed mill .....	4,809
Erection of tanks .....	950
45 yards of concrete .....	1,840
50-ton beam truck scale ....	6,900
Electrical wiring .....	2,400
Steel building .....	8,000
Subtotal .....	50,231
8 acres of land .....	2,200
GRAND TOTAL .....	52,431

### Working capital requirements

The amount of working capital needed depends on the kind of business that is to be started. Approximately how much capital will be re-

quired for labor, power, overhead, depreciation, insurance, and interest? If this capital comes from stockholders' equity, how much capital has been pledged? If this money is to again come from several agencies, what are the repayment terms and rate of interest?

Below is an example of estimated working capital requirements necessary to meet the objectives of the \$52,000 mill in Oklahoma, less cash on hand for the opening inventory.

	Dols.
Labor	
2 mill hands .....	8,000
Manager .....	9,000
Power .....	2,000
Overhead .....	5,000
Depreciation .....	2,500
Interest on borrowed money (\$50,000 @ 5%) .....	2,500
TOTAL OPERATING COSTS .....	29,000

### Other considerations

After determining capital requirements, some additional questions need to be answered.

a. Are anticipated sales above the break-even point?

b. How much additional operating capital will be required for inventory and credit?

c. Are there alternative uses for capital that will earn greater returns in the short or long run?

d. Does this business have community backing and continued enthusiasm?

e. What are the possibilities of combining production and/or distribution of this product with other products—now and in the future?

f. What are the possibilities of a merger with another firm? ■